

REMARKS

Objection to Specification

The specification was objected to as allegedly failing to provide adequate support for the subject matter of claims 3 and 30. It was said that the only mention of variable illumination in the specification occurs at page 11, lines 11-14.

However, this is incorrect. At page 6, lines 10-12, it is stated that: "It also has other data receiving and transmission functions, such as displaying and recording facial and incident light scene images in conditions ranging from well lit to total darkness."

It is respectfully submitted that is adequate support for the subject matter of claims 3 and 30.

The Claims

Claims 1-30 stand rejected as allegedly obvious over U.S. Patent No. 5,222,152 (Fishbine et al.) and U.S. Patent No. 6,320,974 (Glaze et al.), either alone or in combination with other references.

Also, please note that claims 31-44 have been added by this amendment.

The Standard of Obviousness

Three criteria must be met to establish obviousness. First, the prior art must provide one of ordinary skill in the art with a suggestion or motivation to modify or combine the teachings of the references relied upon in rejecting the claims. Second, the prior art must provide one of ordinary skill in the art with a reasonable expectation of success. Third, the prior art, either alone or in combination, must teach or suggest each and every limitation of the rejected claims. The teaching or suggestion to make the claimed invention, as well as the reasonable expectation of success, must

come from the prior art and not from Applicants' disclosure. If any one of these criteria is not met, a case of obviousness is not established.

Applicants' Invention

Applicants' invention, in one configuration, is directed to a method of real time identification and verification of the identity of a person using a portable hand-held device. The method includes transmitting a fingerprint image that satisfies a predetermined quality level to a central processor for processing. The fingerprint image is processed to determine if there is matching fingerprint information in central data storage. Data from the central processor relating to the processed fingerprint image is received at the portable hand-held device, and the received data is displayed on a display of the hand-held device. The method may also include enhancing a captured fingerprint image prior to transmission to the central processor.

Applicants' invention, in another configuration, is directed to capturing a facial image using a portable handheld device. The facial image can be stored in temporary data storage of the portable hand-held device. The facial image is transmitted to a central processor for processing to determine if there is matching facial information in central data storage. After processing, data from the central processor relating to the processed facial image is received and then displayed on a display of the portable hand-held device.

Applicants' invention, in yet another configuration, is directed to a portable apparatus for identification and verification of a fingerprint. The apparatus includes a housing and a user interface for the housing. The user interface includes at least a display and a finger receiving surface to receive an image of a fingerprint. A sensor, a processor, and a transmitter are located within the housing. The processor determines if a fingerprint image meets a minimum quality level. The

transmitter transmits a fingerprint image to a central processor for identification and verification. The processor also receives data from the central processor relating to the processed fingerprint image, and the display is configured to display this data to a user of the apparatus.

The apparatus of Applicants' invention, in another configuration, may include a housing having an ergonomic handle that provides for one hand operation and command of the functions of the apparatus. A sensor, a processor, and a transmitter are located within the housing of the apparatus. A module within the processor can enhance a fingerprint image prior to transmittal of the image.

The Art

Prior to Applicants' invention, portable fingerprint capture devices only transmitted captured fingerprint images a short distance to a mobile unit, for example, a computer in a police squad car. The mobile unit, in turn, relayed the fingerprint information to a central site, via existing law enforcement networks, for processing. After processing at the central site, the fingerprint comparison results for use by the officer or investigator were sent to the mobile unit in the squad car. The results were not transmitted to the portable fingerprint capture device. See, for example, the article by Robert J. Manzano, entitled: "Portable Scannable Speed Police Fingerprint Checks", Los Angeles Times, Orange County News, April 17, 1998. (Reference No. C1 of the Information Disclosure Statement submitted with this Amendment).

Fishbine et al. is similar to these systems. It is directed to a portable fingerprint scanning apparatus 10 that can optically scan and record fingerprint images. The apparatus 10 includes a fingerprint scanner 12, a video camera 20, a video monitor 26, a transmitter 30, and a terminal 28. The fingerprint scanner 12 includes a finger prism 14 and an image recorder 18. The image recorder

18 is a video camera or a CCD array. Fingerprint images generated by the fingerprint scanner 12, that is, the video signal output of the image recorder 18, can be displayed on the video monitor 26 and transmitted by the transmitter 30 to a mobile unit (not shown) for further processing. (Col. 3, lines 19-22). Upon receiving a signal from the terminal 28, the mobile unit digitizes and processes the fingerprint image. (Col. 4, lines 42-45). After image processing and compression at the mobile unit, the image can be transmitted wirelessly to a base unit at a central location for identity verification using an automated fingerprint identification system, such as the FBI's National Crime Information Center Network. (Col. 4, lines 45-51). The monitor 26 may also be used to preview a "mug shot" image generated by the camera 20. (Col. 4, lines 61-64).

Applicants' Invention Would Not Have Been Obvious

A case of obviousness has not been made out. The combination of Fishbine et al. and Glaze et al., either alone or in combination, simply do not teach or suggest each and every limitation of the rejected claims.

The portable fingerprint scanning apparatus of Fishbine et al. did not receive data from a central processor relating to a processed fingerprint image. It also did not have a display for displaying such data.

The examiner admitted as much. He stated that Fishbine et al. "does not explicitly disclose receiving data from the central processor relating to the processed fingerprint, but such a limitation is implicitly disclosed if not inherent because the operator of the portable identification verification system must receive some sort of feedback from the central facility as to the identification of the fingerprint, otherwise the portable system is useless."

The examiner is correct that the operator of the portable fingerprint scanning apparatus must receive some sort of feedback from the central facility as to the identification of the fingerprint. However, in Fishbine et al., as well as in the other prior systems, the feedback from the central facility regarding the processed fingerprint image was not sent to the portable fingerprint scanning apparatus. Rather, it was sent to the mobile unit, for example, a computer in the police squad car.

Therefore, as called for by claims 1, 29, 31, and 36, Fishbine et al. does not disclose receiving data from a central processor relating to a processed image and displaying that data on a display of a portable device. Rather, in Fishbine et al., after the image information is processed at the central facility, the data relating to the processed image is sent to the mobile unit and not to the portable fingerprint scanning apparatus 10 for subsequent display. The image displayed on the monitor 26 of the Fishbine et al.'s fingerprint image capture device is that of a finger on the scanner 12 or a mug shot viewed by the camera 20.

Claim 16 has been amended to specify that the sensor, processor, and transmitter are located within a housing of the portable apparatus for identification and verification wherein the processor determines if a captured fingerprint image meets a minimum fingerprint quality level and a processor module enhances the fingerprint image prior to transmission. These features are not disclosed by Fishbine et al., nor any of the other references relied upon by the examiner.

The fact that the portable fingerprint scanning apparatus 10 of Fishbine et al. and the mobile unit are physically separate from a central facility would not have made it obvious, as stated by the examiner, "to incorporate them into the same device, or to relocate the processor so that it is contained within the portable identification verification system". The mobile unit and the central facility are not the same as a central processor ("mobile unit/central facility"), as stated by the

examiner. The mobile unit, for instance, the computer in a police squad car, is an intermediary device located between the central facility and the portable fingerprint scanning apparatus.

The terminal 28 of the portable fingerprint scanning apparatus 10 of Fishbine et al. controls whether a captured fingerprint image from the scanner 12 or the video camera 20 is transmitted to the mobile unit. The terminal 28 also transmits control signals via the wireless transmitter 30 to the mobile unit to initiate processing and digitizing of the images at the mobile unit. As stated in Fishbine et al.:

Terminal 28 also controls whether the image from fingerprint scanner 12 or video camera 20 is transmitted by wireless transmitter 30 to the mobile unit. Terminal 28 also transmits control signals via wireless transmitter 30 to the mobile unit to initiate processing and digitizing of the images in the mobile unit.

(Col. 3, lines 30-36).

Thus, the digitizing and processing of the fingerprint images in Fishbine et al. are not done in the portable apparatus 10. Rather, this processing is done at the mobile unit which is located, for instance, in a police squad car.

No digital fingerprint data is available at the portable apparatus 10. Instead, the fingerprint data available at the portable apparatus is the video signal output of the image recorder 18. As clearly taught by Fishbine et al.:

The video signal output of image recorder 18 is also wirelessly transmitted by transmitter 30 to a mobile unit (not separately shown). When the operator desires to "capture" a fingerprint image being previewed on video monitor 26, the operator will actuate a key on terminal 28 which generates a signal transmitted by a transmitter 30 to the mobile unit that capture and processing of the fingerprint image should be initiated. . . . Upon receiving the signal from terminal 28, the mobile unit digitizes and processes the fingerprint image. . . . After image processing and compression in the mobile unit, the image can be transmitted wirelessly to a base unit at a central facility, such as a police station, for identity

verification using an automated fingerprint identification system. .

...

(Col. 4, lines 33-51).

In Applicants' apparatus, the sensor, processor, and transmitter are all located within the housing of the portable apparatus for identification and verification. The processing of the fingerprint image in terms of enhancement and fingerprint quality are done by the processor in the portable apparatus. In contrast, no such processing is done in the portable fingerprint scanning apparatus 10 of Fishbine et al. Rather, the terminal 28 is used to communicate a scanned fingerprint image to the remotely located mobile unit where processing of the image may take place prior to transmission to a central facility.

Additionally, since claims 1, 16, 29, 31 and 36 would not have been obvious in view of the cited references, the claims dependent therefrom cannot possibly have been rendered obvious by the combination of Fishbine et al. and Glaze et al., either alone or in combination with other references.

Further, Applicants have traversed the examiner's assertion of Official Notice with respect to certain dependent claims. As such, the examiner must now provide adequate documentary evidence if the rejection of those claims is to be maintained. See MPEP § 2144.04C.

In view of the foregoing, it is submitted that all the claims are now in condition for allowance. Accordingly, allowance of the claims at the earliest possible date is requested.

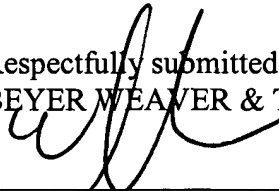
If prosecution of this application can be assisted by telephone, the Examiner is requested to call Applicants' undersigned attorney at (510) 267-4106.

Please apply any other charges or credits to deposit account number 50-388 (Order No.

IDTXP044).

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Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



William J. Egan, III
Reg. No. 28,411

P.O. Box 70250
Oakland, CA 94612-0250